<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of graduates (97% graduation rate):</td>
<td>1,314</td>
</tr>
<tr>
<td>Percent employed in the profession:</td>
<td>96%</td>
</tr>
<tr>
<td>Number of employers:</td>
<td>477</td>
</tr>
<tr>
<td>Percent employed in the U.S.:</td>
<td>97%</td>
</tr>
<tr>
<td>Percent employed in North Carolina:</td>
<td>50%</td>
</tr>
<tr>
<td>Average / median age:</td>
<td>33 / 33</td>
</tr>
<tr>
<td>Percent who are U.S. citizens or permanent residents:</td>
<td>86%</td>
</tr>
<tr>
<td>Percent who are women:</td>
<td>40%</td>
</tr>
<tr>
<td>Employed at graduation:</td>
<td>93%</td>
</tr>
<tr>
<td>Average Starting Salary (real dollars):</td>
<td>$114,787</td>
</tr>
<tr>
<td>Average Annual Salary in 2023 (estimate based on survey):</td>
<td>$173,530</td>
</tr>
<tr>
<td>Promoted since graduation (within 3 years on the job):</td>
<td>47%</td>
</tr>
<tr>
<td>Average time to first job promotion (months):</td>
<td>28</td>
</tr>
<tr>
<td>Transitioned employment one or more times:</td>
<td>55%</td>
</tr>
<tr>
<td>Estimated annual payroll in 2023 (in millions):</td>
<td>$142.9</td>
</tr>
</tbody>
</table>

Reported as of December 31, 2023; Includes graduating classes of ’08 through ’23.

For further information contact: analytics@ncsu.edu
ALUMNI DEMOGRAPHICS

- Citizenship
  - U.S. Citizen or P.R.: 86%
  - Non-U.S.: 14%

- Current Residency
  - NC Resident: 50%
  - Non-Resident: 50%

- Gender
  - Male: 60%
  - Female: 40%

- U.S. Employment
  - U.S.: 97%
  - International: 3%
70 Countries of Origin

Afganistan  Argentina  Armenia  Australia  Bangladesh  Belarus  Belgium  Belize  Bermuda  Brazil  Bulgaria  Cameroon  Canada  China  Colombia  Costa Rica  Croatia  Czech Republic  Dominican Republic  Ecuador  Egypt  Eritrea  Ethiopia  France  Georgia  Germany  Ghana  Greece  Guatemala  Hungary  India  Indonesia  Iran  Israel  Italy  Jamaica  Jordan  Kenya  Kyrgyzstan  Latvia  Mexico  Myanmar  Nepal  Nicaragua  Nigeria  Pakistan  Peru  Philippines  Poland  Romania  Russia  Saudi Arabia  Serbia  Singapore  South Korea  Spain  Sri Lanka  Syria  Taiwan  Thailand  Turkey  Turkmenistan  Uganda  Ukraine  United Kingdom  United States  Uruguay  Uzbekistan  Venezuela  Vietnam
Selected Positions

AI Consultant
AI Data Scientist
AI Technology Lead
AI/ML Data Scientist
AI/ML Solutions Architect
Analytics and Modeling Manager
Analytics Consultant
Applied AI ML Lead
Associate Data Scientist
Business Intelligence Engineer
Chief Data Officer
Chief Data Scientist
Chief Financial Officer
Chief Product Officer
Chief Scientist & Co-Founder
Chief Technology Officer & Co-Founder
Data & Applied Scientist
Data Engineer
Data Science Manager
Data Science Senior Manager
Data Scientist
Data Scientist Consultant
Data Scientist Lead
Data Scientist Senior Consultant
Director, Advanced Analytics
Director, Data Analytics and Engineering
Director, Data Science
Director, Football Research
Director, Global Insights and Analytics
Expert Manager, Data Science
Head of Applied Data Science
Lead Data Engineer
Lead Data Scientist
Lead Machine Learning Engineer
Manager, Advanced Analytics
Manager, Analytical Consulting
Manager, Data and Analytics
Manager, Data Engineering
Manager, Data Science
Manager, Decision Analytics
Manager, Machine Learning
Manager, Quantitative Modeling
Principal Analytics Engineer
Principal Data Scientist
Product Manager
Research Data Scientist
Senior Analytics Consultant
Senior Analytics Manager
Senior Associate Data Scientist
Senior Consultant
Senior Data Scientist
Senior Data Science Consultant
Senior Machine Learning Engineer
Senior Manager, Artificial Intelligence
Senior Manager, Data & Analytics
Senior Manager, Data Science
Senior Manager, Global Data Science
Senior VP, Compliance Governance
Senior VP, Model Scoring & Data Analytics
Vice President, Analytics
Vice President, Data Scientist
Vice President, Decision Science
Vice President, Lead Data Scientist
Vice President, Head of Business Intelligence
**Top-40 Employers of Alumni**

- Accenture
- Ally
- Amazon
- Ankura
- Apple
- Bain & Company
- Bank of America
- Capital One
- Cigna/Evenorth
- Cisco
- Credit Karma
- Databricks
- Dataiku
- Deloitte
- Elder Research
- Elevate Credit
- EY
- Fidelity Investments
- Fifth Third Bank
- Google
- Guidehouse
- JPMorgan Chase
- LendingTree
- Lowe's Companies
- M&T Bank
- Meta
- Microsoft
- NC Joint Underwriters Assoc.
- Pendo
- PenFed Credit Union
- Red Hat
- RTI International
- SAS
- The Home Depot
- The Walt Disney Company
- Truist
- US Defense Department
- US Federal Government
- Verizon
- Wells Fargo

Note: There are 477 employers of alumni in total.

**Alumni Concentration Among the Top-50 Employers**

Note: The top-20 employers account for 40% of all employment among alumni.
Geographic Distribution of Employment within U.S.

Distribution of Employment Outside North Carolina by U.S. Geographic Region

- West: 18%
- Midwest: 17%
- Northeast: 21%
- South: 44%
Distribution of Employment by Major Industry Sector

- Technology: 31%
- Financial Services: 28%
- Consulting: 16%
- Healthcare: 5.9%
- Education/Research: 3%
- Retail: 2.3%
- Government: 2.3%
Estimated Annual Earnings of Alumni Community

Note: Estimate is based on individual starting salaries adjusted for inflation.

Distribution of Alumni Across by Top Metropolitan Areas

- Triangle Region
- Charlotte
- Northern Virginia
- New York
- Northern California
- Atlanta
- Boston
- Cincinnati
- Seattle
- Chicago
- Columbus
- Southern California
- Austin
- Dallas/FW
- Denver

% of Alumni

- 10%
- 20%
- 30%
- 40%
Distribution of Alumni By Size of Employer
(Number of Employees)

<table>
<thead>
<tr>
<th>Size of Employer</th>
<th>Percent of Alumni</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000+</td>
<td>56.4%</td>
</tr>
<tr>
<td>1,001–10,000</td>
<td>20.7%</td>
</tr>
<tr>
<td>501–1,000</td>
<td>5.6%</td>
</tr>
<tr>
<td>51–500</td>
<td>11.1%</td>
</tr>
<tr>
<td>1–50</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

Global Employment Locations
Employment at Graduation

% of Cohort Employed

60%
70%
80%
90%
100%

At Graduation
90-days Post Graduation

Pandemic

INFLATION-ADJUSTED AVERAGE STARTING BASE SALARY
BY COHORT YEAR

$150,000
$125,000
$100,000
$75,000

Inflation-Adjusted Real Dollars
Nominal Dollars

2008 '12 '16 '20 '23 MSA Class of ...

2008 '12 '16 '20 '23 MSA Class of ...

- 11 -
COST OF LIVING INDEX (COLI) ADJUSTED STARTING BASE SALARY BY LOCATION OF EMPLOYMENT

NET INCREASE IN EARNINGS FOR PREVIOUSLY EMPLOYED ALUMNI
### Median Debt and Monthly Debt to Income (DTI) Ratio

<table>
<thead>
<tr>
<th>Median Debt ($)</th>
<th>Median Monthly DTI Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10,000</td>
<td>0%</td>
</tr>
<tr>
<td>$20,000</td>
<td>2%</td>
</tr>
<tr>
<td>$30,000</td>
<td>4%</td>
</tr>
<tr>
<td>$40,000</td>
<td>6%</td>
</tr>
<tr>
<td>$50,000</td>
<td>8%</td>
</tr>
</tbody>
</table>

#### MSA Class of...

- 2016
- '17
- '18
- '19
- '20
- '21
- '22
- '23

### Compound Average Growth Rate in Total Compensation by Years Since Graduation (Alumni Survey, n=366)

<table>
<thead>
<tr>
<th>Years Since Graduation</th>
<th>Real Growth</th>
<th>Inflationary Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17%</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>18%</td>
<td>7%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>4</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>5</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>6</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>7</td>
<td>15%</td>
<td>11%</td>
</tr>
</tbody>
</table>

- Inflationary Growth
- Real Growth
Comparative Wage Growth For Alumni in Classes of ’16–’19
Who Had Made or Not Made a Change in Employer
Between January 2021 and July 2023

Starting Average Salary | Current Average Salary
--- | ---

| Employer Change (n=50) | CAGR: 13.92% |
| $60,000 | $210,000 |
| $90,000 | $180,000 |
| $120,000 | $150,000 |
| $150,000 | $130,000 |
| $180,000 | $100,000 |

| No Employer Change (n=50) | CAGR: 10.94% |
| $60,000 | $150,000 |
| $90,000 | $130,000 |
| $120,000 | $110,000 |
| $150,000 | $90,000 |
| $180,000 | $70,000 |

Annual Base Salary for Alumni by the Number of Years Post-Graduation (Class of 2008 through 2022)

<table>
<thead>
<tr>
<th>Base Salary by Years Post-Graduation</th>
<th>1-3 Years</th>
<th>4-6 Years</th>
<th>7-9 Years</th>
<th>10 or More Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>$122,058</td>
<td>$152,513</td>
<td>$174,922</td>
<td>$190,943</td>
</tr>
<tr>
<td>Max</td>
<td>$180,000</td>
<td>$280,000</td>
<td>$400,000</td>
<td>$520,000</td>
</tr>
<tr>
<td>75th</td>
<td>$130,000</td>
<td>$170,000</td>
<td>$196,000</td>
<td>$209,000</td>
</tr>
<tr>
<td>Median</td>
<td>$120,000</td>
<td>$146,000</td>
<td>$170,000</td>
<td>$175,000</td>
</tr>
<tr>
<td>25th</td>
<td>$110,000</td>
<td>$130,000</td>
<td>$148,000</td>
<td>$157,500</td>
</tr>
<tr>
<td>Min</td>
<td>$75,000</td>
<td>$95,000</td>
<td>$99,000</td>
<td>$109,000</td>
</tr>
<tr>
<td>N</td>
<td>137</td>
<td>116</td>
<td>77</td>
<td>35</td>
</tr>
<tr>
<td>Population</td>
<td>352</td>
<td>340</td>
<td>278</td>
<td>255</td>
</tr>
<tr>
<td>Response Rate</td>
<td>39%</td>
<td>34%</td>
<td>28%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Institute for Advanced Analytics poll of Master of Science in Analytics alumni conducted July 25 to August 15, 2023. [https://go.ncsu.edu/salary-survey-2023](https://go.ncsu.edu/salary-survey-2023)
Comparative Wage Growth For U.S.-based Alumni Who Reside in North Carolina and Those Who Do Not Class of ’16 through ’19 (n=147)

Starting Average Salary

Current Average Salary

CAGR: 14.24%

CAGR: 11.33%

Compound Average Growth Rate in Total Compensation for Men and Women in the 5 Years Since Graduation (n=210; 36% response rate)
Total Compensation for Institute Alumni and Glassdoor Survey Participants (Data Scientists and Senior Data Scientists), August 2023

Average Base Salary

- Glassdoor Senior Data Scientist
- Institute Alumni
- Glassdoor Data Scientist

Years of Experience

Workplace Arrangements of Alumni Survey Respondents (n=572)

- Onsite: 2.6%
- Remote: 41.1%
- Hybrid (Set): 33.7%
- Hybrid (Flexible): 22.6%
About the Data

Data in this report are compiled primarily from three sources: (1) Institute records on admissions and employment published annually; (2) Information on current employment, including transitions and promotions, gathered from alumni profiles on LinkedIn; and (3) periodic surveys of alumni with 722 participants in 2023.

Institute measurements are typically a census of each cohort year with carefully curated data for completeness and accuracy.

Though imperfect, data culled from LinkedIn may be useful in discerning trends over time keeping in mind the limitations. While a significant portion of the alumni population maintain up-to-date and detailed profiles, there are cases where the profile is updated sporadically or provides only rudimentary details about employers and positions. In a small number of cases it is evident a profile has been stagnant since graduation. Individuals may be more likely to make timely updates to their profile when significant career changes happen, such as employer transitions, and slightly less so when receiving career ladder promotions.

Source URL: http://analytics.ncsu.edu/reports/alumni/MSA2023.pdf